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(54) Title: ENZYMATIC SYNTHESIS OF N^α-ACYL-L-ARGININE ESTERS

(57) Abstract: The invention relates to a process for preparing a Na-acyl-L-arginine ester, derived from fatty acids and esterified dibasic amino acids, according to the following formula (I), where: X- is Br-, Cl-, or HSO₄- R1: is linear alkyl chain from an saturated fatty acid, or hydroxy-acid from 8 to 14 atoms of carbon bonded to the α- amino acid group through amidic bond. R2: is a linear or branched alkyl chain from 1 to 18 carbon atoms or aromatic. R3: is formula (II), where n can be from 0 to 4, from the appropriate organic acid and alcohol. The process is catalyzed by a hydrolase, more in particular a protease, the protease papain from Carica papaya being highly suitable. In order for the esterification reaction to run as wanted, the process is performed in a low-water-content organic medium. When the highly suitable papain from Carica papaya is used, a water activity of between 0,03 and 0,5 is selected.

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